Swiss Programme for Research on Global Issues for Development

Towards Food Sustainability: Reshaping the Coexistence of Different Food Systems in South America and Africa

“Food That Makes You Strong”: Implicit and Explicit Knowledge in the Food Sustainability Framework

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Publisher:
Centre for Development and Environment (CDE), University of Bern
Hallerstrasse 10, CH-3012 Bern, Switzerland
www.cde.unibe.ch

Funding:
The project "Towards food sustainability: Reshaping the coexistence of different food systems in South America and Africa" is part of the Swiss Programme for Research on Global Issues for Development (r4d programme). As such, it is funded by the Swiss Agency for Development and Cooperation and the Swiss National Science Foundation [Grant number 400540_152033], with additional support from the Centre for Development and Environment (CDE), University of Bern, Switzerland.

Research consortium:
Agroecología Universidad Cochabamba (AGRUCO), Cochabamba, Bolivia; Centre for Training and Integrated Research in Arid and Semiarid Lands Development (CETRAD), Nanyuki, Kenya; Geneva Academy of International Humanitarian Law and Human Rights, Geneva, Switzerland; as well as Centre for Development and Environment (CDE), Institute of Geography, and Institute of Social Anthropology, all at the University of Bern, Switzerland.

Citation:
Hertkorn M.-L. 2017. *"Food that makes you strong": Implicit and explicit knowledge in the food sustainability framework.* Towards Food Sustainability Working Paper No. 4. Bern, Switzerland: Centre for Development and Environment (CDE), University of Bern.

DOI: http://dx.doi.org/10.7892/boris.101388

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Cover photo: Local vegetables (by Marie-Luise Hertkorn)

Swiss Programme for Research on Global Issues for Development

The Swiss Programme for Research on Global Issues for Development (r4d programme) is a joint funding initiative by the Swiss Agency for Development and Cooperation (SDC) and the Swiss National Science Foundation (SNSF). The r4d programme supports research aimed at solving global problems with a focus on least developed as well as low- and middle-income countries. The r4d programme consists of five thematic modules and a thematically open module.

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1 Introduction

Speaking about knowledge, most people imply a collection of facts and theories, such as “Nairobi is the capital of Kenya” or “ice melts at zero degree”. The term “knowledge” is strongly associated with what one can learn from the books, with what is taught in schools, and with the output of universities and research institutes. However, there are examples of knowledge that do not fit in this description, and that nonetheless are deeply meaningful for human existence. For instance, I can justifiably claim that I know how to milk a cow, and when I meet a person I know, I am able to recognize his or her face. These examples fundamentally differ from the first-mentioned forms of knowing: *knowing that* a proposition is true is not the same as *knowing how* to perform an action or accomplish a goal. These forms of knowledge are deeply intertwined, and both are crucial for human lives. However, *knowing how* is often not recognized as a form of knowledge due to its implicit nature: it is difficult to express in words how one performs a skilful action like milking. Even the knowers themselves often are unaware of the rich body of knowledge they possess; their knowledge is manifest in their actions and perceptions.

Knowing that is also called explicit knowledge because it can easily be expressed and circulated through language. Implicit knowledge, in contrast, is not easily shared verbally. In an increasingly globalized world, such immobility is a major drawback. This is particularly problematic in the development context, where the knowledge of indigenous communities, which often mainly involves implicit knowledge forms, has been undervalued for decades. Numerous failures of development projects could have been prevented had the perspectives of the local population – and with these perceptions the implicit knowledge hidden therein – been taken into account. In order for development efforts to have sustainable effects, it is crucial to encompass both implicit and explicit forms of knowledge. This also holds true for the realm of food sustainability, as I demonstrate in the paper at hand.

In this paper, I analyse the interplay of different forms of knowing in the arena of global development by means of a case study on the nutritional knowledge of farmers and nutritionists in the Mount Kenya region. It is based on both literature, mainly drawn from the field of practical philosophy, and qualitative data that I collected between February and May 2016. The methodological approach includes participatory observation, narrative and semi-structured interviews, focus group discussions, and participatory photography (see Annex 1). Against this backdrop, I aim to answer the following research questions:

1. What are the differences between implicit and explicit forms of knowledge in general?
2. Which forms of knowledge do the perspectives of farmers and nutritionists on “good nutrition” involve, what do their views have in common, and where do they clash?
3. What are the characteristics of the interplay of explicit and implicit nutritional knowledge in the Mount Kenya region?
4. What are the implications of the answers to the above questions for the design of development projects, particularly with regard to food sustainability?

The results presented in this paper consequently are structured in four parts, followed by the conclusions that include recommendations for shaping the dynamics of knowledge in the field of global development.

2 Implicit and explicit forms of knowing

Explicit knowledge is knowledge that can be communicated by means of language (Polanyi, 1966). It largely overlaps with propositional knowledge, i.e. forms of *knowing that* (Ryle, 1969). Any proposition in the form of a claim to justified true belief could serve as an example, for instance: “I know that the platypus has five X and five Y chromosomes”. Scientific knowledge commonly is conceptualized as explicit knowledge, circulated through written publications, presentations, and lectures. The knowledge generated through research is largely perceived as impersonal and objective. Despite growing epistemological scholarship that challenges the paradigm of objectivity, mainstream natural science is considered objective by both the public and the scientists themselves. The latter is reflected in the impersonal writing style of most scientific literature.

However, scientific knowledge has not always been conceptualized as objective in a non-perspectival way. Contrastingly, in the early days of scientific investigation, scientific knowledge was essentially personal (Daston, 2001). Allied scientists exchanged letters that dovetailed the reporting of research results with narrations of private life, and the credibility of observational protocols to a large extent depended on the author’s scientific experience, his (male) gender, his reputation, and his social status. The personal nature of science in the 18th century is also manifest in the style of research papers of that time that are consistently written in the first person. In the course of the reorganization of science in the 19th century, scientific connections expanded into an extensive, heterogeneous network. The complexity of the scientific community increased, and the sheer number of scientific staff made it impossible to establish personal relations with all important researches from one’s field. Consequently, there was a growing need for impersonal criteria enabling the judgment of the credibility of research results. From the late 19th century on, mechanical objectivity took the place of the personal relation. Instead of being experienced and renowned, the ideal observer of an experiment now should be as featureless as possible. Observational processes were broken down in a number of individual operations, carried out by several substitutable laboratory assistants. The ethos of the interchangeable observer emerged as the new scientific value, corresponding with the elimination of the first person in scientific publications.

The moral norms associated with modern scientific knowledge are a consequence of the development sketched out above. These norms can be assigned to four different categories (Merton, 1942): (1) Universalism: Criteria like skin colour, social status, or gender of the researcher should not influence the judgment of the knowledge produced by him or her. Rather, knowledge is to be accepted as scientific when it is logically conclusive and coherent with observation – regardless of the researcher’s personal features. (2) Communism: Scientists do not have property rights to their findings. Instead, they are supposed to share their knowledge with the scientific community. (3) Selflessness: Researchers are supposed to pursue science for the good of humanity, rather than for their own or a third party’s benefit. (4) Organized scepticism: Scientists should call into question established structures, including traditional scientific and religious doctrines. A brief glance on today’s scientific realities makes clear that Merton’s norms are to be interpreted more as ideals rather than as descriptions of actual science. However, it is important to bear these norms in mind when thinking about the nature of scientific knowledge. That scientific knowledge is understood as a pure form of impersonal explicit knowledge is a consequence of human choices – it is not a necessary or inherent feature of this form of knowing.

Implicit knowledge, in contrast, can only to a very limited degree be communicated by means of language. For instance, when Emily recognizes Susan upon meeting her, she might justifiably claim

“This is my friend Susan”. However, she will probably not be able to explain in words how exactly she recognized her friend’s face, because the shape of a person’s eyes, nose, mouth, and so forth is hard to describe. However, Emily knows – and with knowing I mean here having a justified, true belief that is sensitive to errors and robust when confronted with false claims (see Wingert, 2003) – that her vis-à-vis actually is her friend Susan, and not another woman who looks alike. Emily possesses knowledge about Susan’s identity, without being able to provide a verbal justification of her knowledge. Such knowledge is called implicit or tacit knowledge (see Polanyi, 1966).

There are different forms of implicit knowing. Gilbert Ryle (1969) argues that performing an action in a skilled manner is not only a physical but also an intellectual achievement – acting skilfully is a form of knowing how. An experienced cyclist might not think about the movements he makes in order to balance his bicycle. Rather, he internalized the rules of gravity and balance through repeated training. He knows how to make his way through dense traffic, and he is able to maintain the balance even when the road surface unexpectedly changes.

In a similar vein, James Scott (1998) describes skilful action as a form of knowledge that he calls Mētis: “[a] wide array of practical skills and acquired intelligence in responding to a constantly changing natural and human environment”. Mētis includes for instance agricultural skills, such as the knowledge of the right time to sow. A skilful farmer may reasonably decide to sow the maize on a particular day without measuring the moisture content of the soil, without looking at weather predictions, and without consulting the recommendations of an agricultural service provider. She simply knows that the time to sow has come, whereby she may not even be aware of the criteria her knowledge is based on – this, however, does not limit the reliability of the knowledge she possesses.

Polanyi, Ryle, and Scott discuss similar phenomena with different intentions. Polanyi aims at showing that tacit knowing is a prerequisite for all forms of knowledge, including explicit knowledge. Ryle intends to demarcate *knowing that* from *knowing how*, arguing that intellectual achievements form part of skilful action rather than preceding it. Scott’s main concern is the respect for knowledge cultures that are not captured by the standard conceptualization of scientific knowledge. Despite these differences, the forms of implicit knowledge the three authors describe have important common features: (1) the crucial role of experience in gaining such knowledge and (2) the impossibility of providing a verbal justification for the acquired knowledge. Even though parts of the knowledge content may be verbally articulable – e.g., “I know that this is my friend Susan” or “I know that now is the right time to sow”, the justification of implicit knowledge necessarily remains tacit.

Implicit knowledge is often overlooked because it is largely experience-based and thus difficult to circulate. This is true especially in the context of global development, where much relevant knowledge is comprised in the skilful decisions and actions of the rural population. Maria Restrepo and her colleagues have demonstrated that milking undertaken by Kenyan small-scale farmers involves a variety of routine and problem-solving control rules, e.g. regarding udder health, milk quality, or market imperfection (Restrepo et al., 2016). However, the ability to milk a cow well is commonly not perceived as a skill that involves knowledge, mostly not even by the farmers themselves. There are many instances of development projects that failed because the knowledge of the local population was not taken into account. At present, development agencies increasingly rely on participatory approaches and try to take into account local perspectives as well as the knowledge comprised therein. However, peasant knowledge in general – and especially the implicit part of it – remains underestimated up to the present day. This is also true for nutritional knowledge, as I will show in the remainder of this paper.

3 “Good nutrition” – forms of nutritional knowledge in the perspectives of farmers and nutritionists

According to the perspectives of **nutritionists** in the Mount Kenya region, good nutrition is well-balanced and covers the daily requirements regarding macro- and micro-nutrients: “That’s good nutrition: where all the nutrients are mixed well. You don’t consider one of the nutrients, but all the nutrients. And the outcome is a good nutritional status” (SSI3[1]). Only when adequate amounts of macro- and micro-nutrients and fibre are consumed, a nutritionist explains, “your body continues to function well, and then you get now the nutritional status that is okay” (SSI3).

The dietitians outlined the components of a good nutrition, clarified that different people have different needs, and explained that there are several foods that can be taken interchangeably in order to grant the supply of all required nutrients. There was agreement that the traditional nutrition in the Mount Kenya region is good nutrition, reflected in statements like: “I usually advise people to take the traditional foods” (SSI4).These perspectives are consistent with the guidelines of WHO and FAO in which it is emphasized that an “an adequate, well balanced diet” (SGL1[2]) is the foundation of good health, and that indeed “the traditional diets of most societies in developing countries are good” (SLG2[3]).

Also among **farmers**, the belief was widespread that traditional nutrition is good nutrition – this includes both the consumption of traditional foods like *githeri*[4] or *mokimoo*[5] (see pictures) and the use of wholemeal products for their preparation: “The maize has got the bran, and when you remove it, you kind of remove the energy” (FNI3). Moreover, a number of farmers held the view that people who rely on modern foodstuffs are “weak because of using foods which are not natural, not the traditional foods. (...) And that is the reason why you see the people of today, the old ones like me, are stronger than the young generation because (...) their food is not strong inside their body. Because they take rice, and this flour which is sifted” (FNI3).

Figure 1: *Githeri*.

Figure 2: *Mokimoo*.

In addition, farmers stressed the benefits of taking a variety of foods: “When you don’t take potatoes plain and you mix them [with other foods], that’s when it’s good” (FSI6). According to the farmers,

[1] See Annex A1 for the disambiguation for interview abbreviations.

[2] http://www.who.int/topics/nutrition/en/ (15 July 2016).

[3] http://www.fao.org/docrep/w0073e/w0073e03.htm#P396234 (15 July 2016).

[4] A mulligan made of maize, beans, potatoes, and vegetables (mostly cabbage).

[5] A mash of maize, beans and potatoes, mixed with leafy vegetables.

good nutrition enables the body to maintain its functions, and it “makes you resistant to diseases” (FSI1) – in this way, “the body can get good health” (FSI6) up to the old age.

Most importantly, a good diet is comprised of “the food that can make you strong” (FSI1). In the interviews and discussions with farmers, the notion of strength repeatedly emerged, for instance: “Good nutrition (...) is what gives me strength. Beans, maize and greens (...) give us strength, and [when I take them,] I am able to work” (FNI4), or “good food is *githeri*, *mokimoo*, tea, and (...) *ugali*[6], because when I take them and go to work, my body is strong enough to work” (FPP).

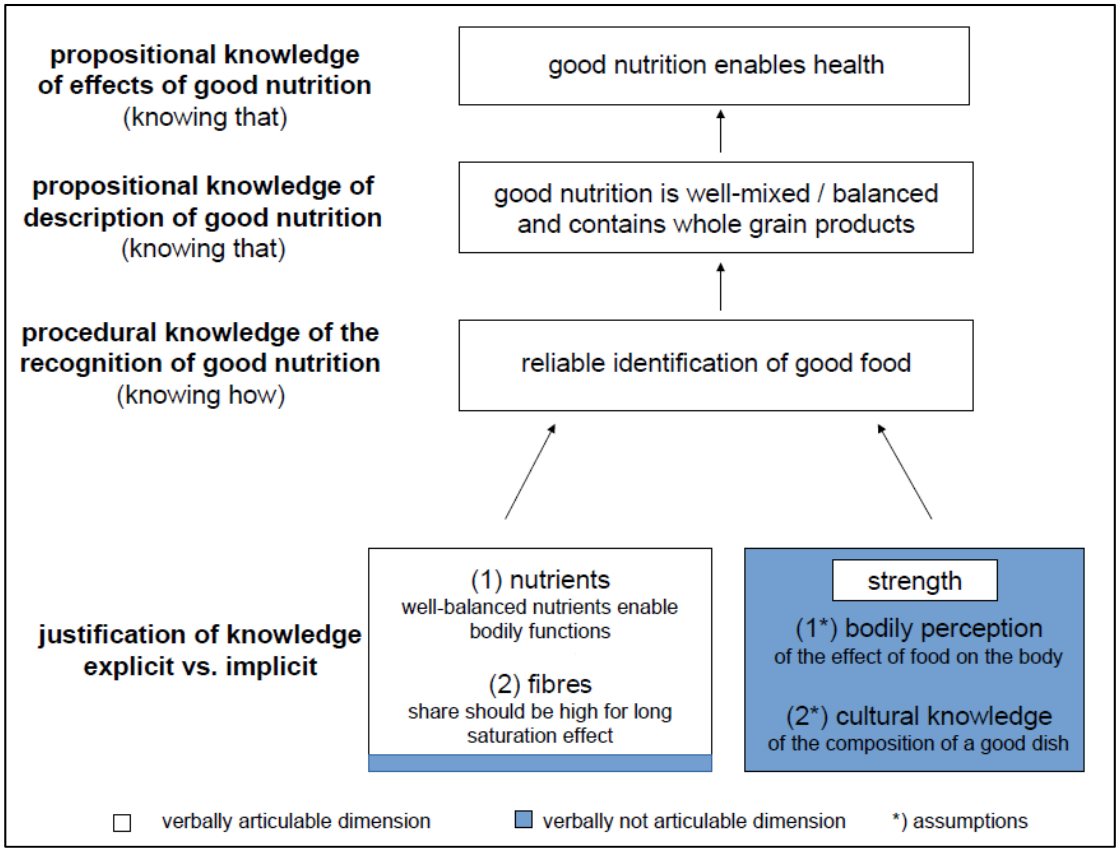

Figure 3: Content and justifications of knowledge.

These outlines of the views of farmers and nutritionists are rather rough; however, their comparison provides insight into different forms of nutritional knowledge in the Mount Kenya region (see Figure 3). With regard to the knowledge content, the perspectives of farmers and scientific staff are generally reconcilable. Both groups have knowledge of nutrition, of which the content is consistent on three levels. First, farmers and nutritionists have propositional knowledge of the effects of nutrition: they know that good nutrition is a presupposition of physical health. Second, they have propositional knowledge of the description of good nutrition: they know that good nutrition is balanced and contains wholemeal products. And third, they have procedural knowledge of the recognition of good nutrition: they know how to reliably identify good food.

However, taking into account the *justifications* provided for the identification of good food disrupts the semblance of cognitive congruency. Nutritionists argue that an adequate supply of macro- and micro-

[6] Porridge made of maize flour.

nutrients enables bodily functions, and that the fibre content of a dish is associated with the duration of satiation – they provide an *explicit* justification of knowledge. In contrast, the verbal justifications provided by numerous farmers ended with the notion of "strength". Attempts to elicit more detailed explanations of what exactly the term "strength" comprised largely failed; mostly such questions were answered with the plain statement that a certain dish does provide strength whilst another dish does not. I conclude from my research that **the term "strength" functions as a marker for implicit knowledge**, and in the remainder of this chapter I will justify this conclusion.

The farmers are capable of demarcating "strong" from "weak" foods in a determined, reliable manner. Take for instance the young farmer who, in the framework of the participatory photography, took pictures of two dishes: rice with potatoes (Dish A), and rice with potatoes, maize, and beans (Dish B).

Figure 4: Dish A.

Figure 5: Dish B.

Describing the food on the pictures in the interview, he explained:

> When you take this (points at the picture showing dish A), and then you go to the farm, maybe to do the digging and all that stuff, you feel that you are not strong for the work. But when you take this one (points at the picture showing dish B), and you go to finish up your duty, you are too strong, and you can finish it up easier than when you take the other one. (...) Even if you take as many plates as possible of this (A) and you go to the farm, after doing a little bit of work you feel down, [as if] you have not yet eaten anything. But when you take this (B), because of the maize and beans content in it, this is what makes it possible for you, it gives you the strength that you need. The rice, it does not stay long in the stomach. It is easy to digest and easily used up. (FPP)

In chapter 2 I defined knowledge as having a justified, true belief that is sensitive to errors and robust when confronted with false claims. The young farmer's ability to identify strengthening food is a form of tacit knowing, because his belief that the maize and beans content in the food gives him strength is justified by his own bodily perception. If someone falsely claimed that rice and potatoes without maize and beans was the better food, he could refute the assertion with reference to his own bodily feeling. Moreover, the young farmer can be sensitive to errors due to the bodily grounds of his belief. Imagine that the he had never eaten either of the dishes, and that he were wrongly convinced that rice with potatoes was the better food. Upon eating and working afterwards, he would probably realize that the actual physical effect does not correspond with his belief. I take this (partly presumed) ability of responding to counterarguments, of noticing errors, and of judging hitherto unknown objects or

situations as indications of implicit knowledge. I assume that this knowledge is rooted in both individual bodily perceptions and collective, cultural knowledge of the composition of good nutrition, the latter reflected in the traditional diet of the Mount Kenya region that both farmers and dietitians evaluate as good nutrition.

4 Changing views: supersession of implicit knowledge?

The young farmer cited above was the only one of his age who spoke about strength when asked to describe what good nutrition meant to him, and in contrast to others of his age group, he did not go to school for a very long time. Age, which I take here as a proxy for education, indeed appears to have an influence on the respondents' conceptualizations of good nutrition (see Figure 6).[7] Whereas elderly people primarily emphasized the strengthening effects of good nutrition, the respondents in the youngest age category employed mostly scientific vocabulary. An 18-year-old respondent defined good nutrition as "eating foods that (...) contain the proteins, carbohydrates, vitamins" (FSI7), and statements like "good eating is having a balanced diet" (FSI9) also were common. The fact that the majority of the respondents in the youngest age group did not mention "strength" or other bodily sensations of the effects of food at all makes me believe that for the conceptualization of good nutrition, younger respondents attach little importance to their own bodily response to certain dishes.

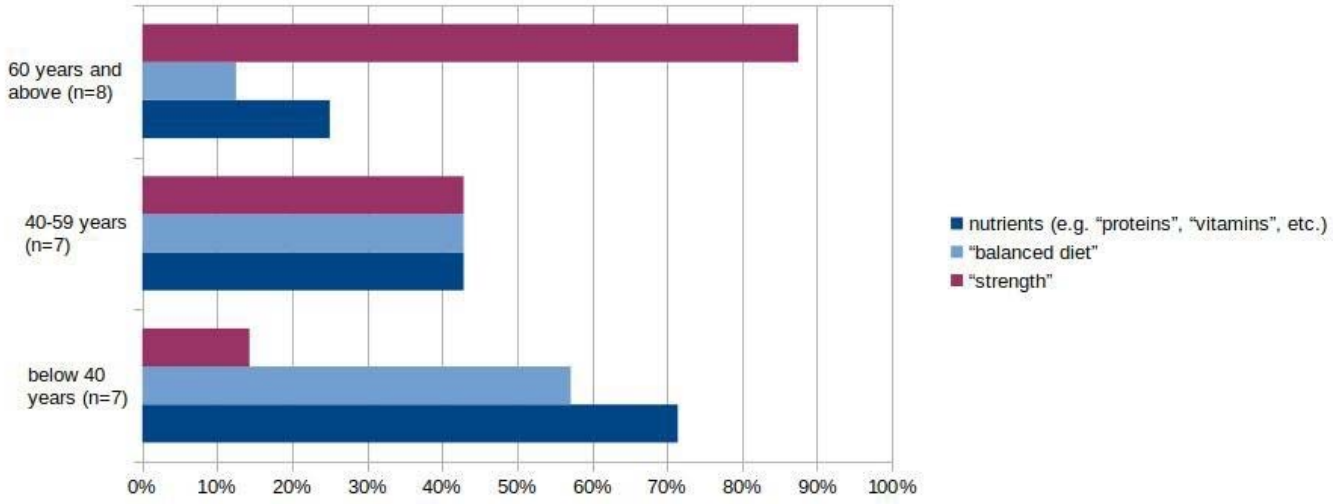

Figure 6: Keywords used to describe "good nutrition" across age groups.

This could have several reasons. First, some of the younger respondents seek for off-farm income opportunities (e.g. driving a motorcycle taxi, cooking at the school, etc.), and others still go to school, so farming is not their main occupation. Consequently, they do not rely on physical strength in their everyday life – in contrast to the majority of elderly people who have mainly been farming since their youth. Second, younger people have greater access to formal education including nutritional teaching than their grandparents. Nowadays, an eight-year primary education is mandatory and free[8] in Kenya, and in the primary schools of the Mount Kenya region, nutrition is discussed in different years with different thematic foci (KSI6). Hence, people who graduated from primary school had the repeated chance to acquire scientific nutritional knowledge. Therefore, they have a cognitive alternative for the conceptualization of good nutrition other than the perspective gained through bodily sensation and

[7] For the interpretation of this figure, one has to keep in mind that the sample size is rather small, and no inference about statistical significance should be made.

[8] This does not imply that all children attend school – often, hidden costs like expenses for books or uniforms prevent parents from sending their children to school, and for families in which children con- tribute to the family income or carry out household labor, schooling entails opportunity costs. Nevertheless, the net enrollment rate on the primary school level in Kenya is comparatively high (85% in 2012, see http://data.worldbank.org/indicator/SE.PRM.NENR?locations=KE; 3 March 2017).

cultural heritage. One now might expect that the two perspectives are integrated into a holistic view on good nutrition, comprised of both explicit and implicit knowledge elements. However, **the data convey the impression that implicit knowledge on good nutrition is ousted by explicit knowledge forms** with the change of generations.[9]

[9] I would recommend confirming these findings in a study with a higher sample size.

5 New food habits and the relevance of implicit knowledge for a good dietary practice

If the impression is valid that implicit knowledge is gradually being replaced by explicit knowledge forms, the question arises how this supersession should be evaluated. In chapter 3 I showed that the content of both knowledge forms regarding good nutrition proved congruent when comparing farmers' and dietitians' views. Thus, implicit knowledge does not seem to provide a gain of insight as compared to explicit knowledge. In addition, implicit knowledge is personal and hence immobile, whereas explicit knowledge has the advantage that it can be justified by arguments and circulated for discussion, verification, and dissemination. Hence, the loss of implicit nutritional knowledge appears bearable because there is no obvious extra benefit of implicit knowledge as compared to explicit knowledge.

However, **the supersession of implicit through explicit nutritional knowledge is problematic due to the missing link between explicit nutritional knowledge and dietary practice**. This is exemplified by the statements of an 18-year-old respondent. The ambitious high school student was able to give a valid textbook definition of good nutrition. When asked about her own dietary preferences, however, she stated that like other young people she liked "eating chips, and crisps, things like those. And also the *mandazis*[10], the cakes...". She rated these foods as "good (...) because they are tasty", and her view seems to illustrate a greater trend of young adults' dietary preferences. A nutritionist (SSI4) deplored:

> Especially when the supermarkets are coming, the malls coming, people are taking a lot of burgers, the hotdogs, such foods, and there are a lot of other foods which are full of saturated fats, a lot of refined sugars (...) I can see people are taking them, and (...) they are seeing themselves as being classy (...) Even in the slums, you can find people cooking the French fries, it has become a trend. French fries and sausages have become a trend.

The crucial issue here is that eating is not only a means of self-preservation: food functions further as a marker of social status (see Bourdieu, 1987). It seems plausible that the social component of eating plays a role in the advance of "modern" foods in the Mount Kenya region. This nutritional change does not only concern the consumption of fast foods and sweets, but also – and maybe even more importantly – the integration of white rice in the everyday diet. Asked to list their favourite foods, young adults consistently expressed a strong liking for rice, whereas older respondents tended to prefer traditional foods like *githeri*. This becomes apparent in the comparison of a common statement of a middle-aged respondent: "though we do consume *chapati*[11] and rice, my favourite is still *githeri*" (FNI2) with the typical answer of a young adult: "my favourite food? It's just rice" (FSI12). Young respondents indicated as reasons for this preference that rice is both tasty and easy to prepare. But with Bourdieu's arguments in mind, one might conjecture that social factors likewise exert an influence. A respondent in his 50es explained that when he was young, "rice was only used by those people with a lot of money. We could not afford to buy rice" (FSI8). And still today, rice is comparatively expensive: by the time I conducted the data collection in the Mount Kenya region, the price of rice

[10] A deep-fried, pouch like sweet bread.

[11] A flat round bread made of (mostly sifted) wheat flour, fried in vegetable oil.

was nearly three times as high as the price for maize flour. Hence, the preference for rice might be interpreted as an expression of the desire to gain in social status by means of nutritional choices.[12]

The problem with the increased consumption of white rice, sifted flour, and fast food products is the rise of diet-related diseases. A nutritionist explains:

> Of course modern foods have influenced the change from traditional foods. Because some of the people are using now the sifted food unlike before. (...) People are going to the supermarket, get the sifted food which has got a high glycaemic index, they eat, and that's why we find that there is an increase in non-communicable diseases like diabetes. (SSI3)

In light of this development, it is concerning that young adults' explicit nutritional knowledge does not appear to exert a noteworthy impact on their diet. The young, educated respondents have an explicit, stable, scientifically informed opinion on good nutrition, but this opinion is not transformed into a belief in the sense of a disposition for action. A reason for this missing link might be that the nutritional knowledge of schooled young people is one-dimensional: it consists of purely cognitive propositions which are not supported by *experience* that could support the formation of influential beliefs. In contrast, the respondents who emphasized the notion of "strength" gain their knowledge through their own bodily sensations. This knowledge is multi-dimensional and holistic: it includes the flexible competence to critically judge different and even unknown foods as "strengthening" or "weakening". Consequently, the farmers' perspective on good nutrition is true belief not only by chance or by unquestioned tradition. It is true belief that is sensitive to errors and robust when confronted with false claims – that is: knowledge. This knowledge is implicit because the verbal justification ends with the notion of "strength" which is not further explicable. Such **knowledge gained through personal experience is more action-effective than knowledge acquired through studying.** This is why implicit knowledge is so important when it comes to translating belief into action.

[12] There are other, both exogenous and endogenous factors influencing the change of nutrition in the Mount Kenya region on which I cannot go into detail here. A systematic overview can be found in Annex 2.

6 Conclusions

The supersession of implicit through explicit nutritional knowledge is problematic on the long run because the replacement of implicit knowledge entails the loss of important drivers of action guided by knowledge. The failure of nourishing oneself in a foresighted manner does not only affect the individual's long-term health status but also entails the externalization of cost for patient care as well as the loss of workforce that society has to compensate for. Promoting implicit nutritional knowledge might be a promising avenue for avoiding such cost through the improvement of individual nutritional decisions.

The main future challenge is to develop strategies that facilitate the integration of implicit and explicit knowledge forms in a holistic approach – this applies both to the fields of cognition and education. First and foremost, scientific community and society have to recognize the importance of implicit knowledge for dietary matters. Nutritionists must not deny ordinary people's epistemic authority over their own well-being. Rather, planners of nutritional services should take into account that people with little or no formal education have their own means of acquiring knowledge, and that such knowledge may be superior to the explicit knowledge based on scientific research when it comes to practicability. Most importantly, planners have to conceptualize the beneficiaries of their interventions as knowers – this means, eventually, that scientists have to respect non-scientists as epistemic equals, regardless of whether or not they enjoyed formal education. This applies not only to the nutritional domain, but also to other fields of global development.

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Annex 1: Methodology overview

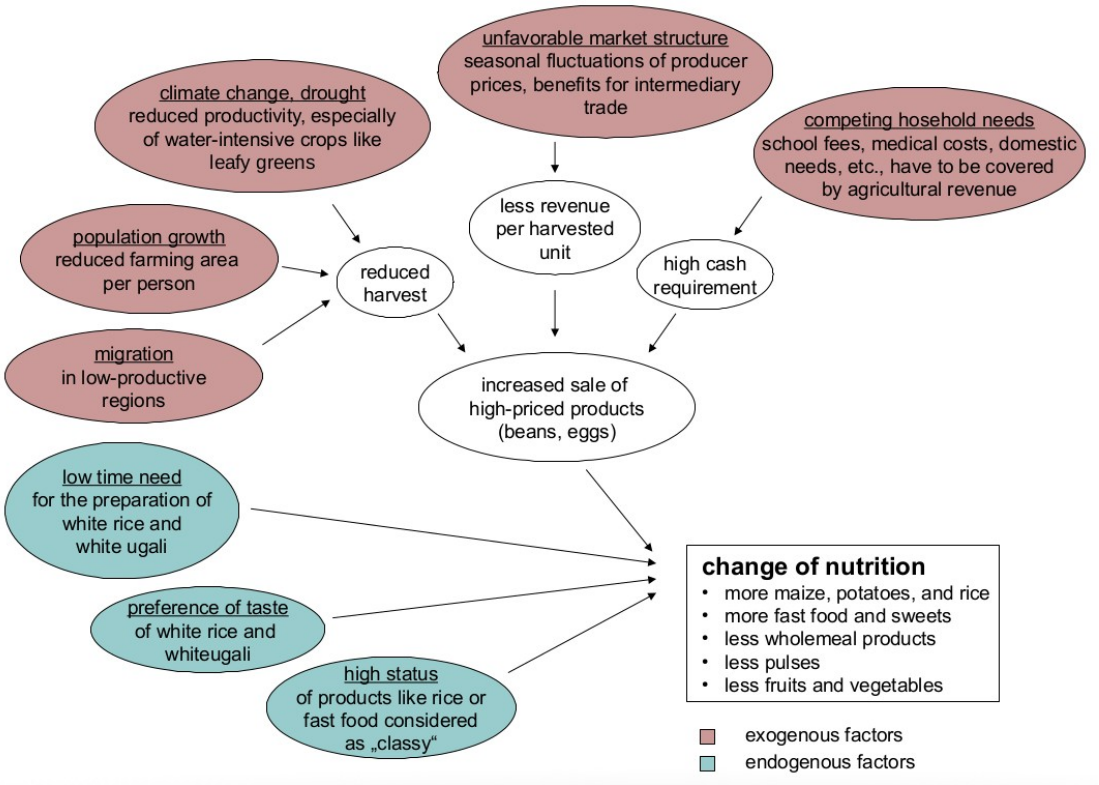
A Data collection

Methods (collection period: Feb–May 2016)	Village 1	Village 2	Total
Farmers' knowledge			
Participatory observation (FPO)	1	1	2
Narrative interviews (FNI)	3	3	6
Semi-structured interviews (FSI)	6	6	12
Focus group discussions (FGD)	1	1	2
Participatory photography (FPP)	1		1
Scientific nutritional knowledge			
Semi-structured interviews with nutritionists (SSI)			4
Scientific guidelines by FAO and WHO (SGL)			2
Key informants			
Semi-structured interviews (KSI)			7
Total interviews and discussions (excl. FPO and SGL)			**32**

B Data analysis

I analysed the data from different sources based on grounded theory (Charmaz, 2006; Glaser and Strauss, 2009). All interviews were transcribed and imported in the open source statistics program R; relevant elements of field notes likewise were digitalized and added. With the qualitative data analysis tool RQDA I first performed open coding with all text elements and then clustered the codes in a second step. The advantage of this method is that all topics broached by the interviewees appear in the resulting code structure. Given sufficient openness of the data collection methods, this methodology enables the researcher to see beyond his or her own scientific interest and take into account hidden aspects that are important to the respondents but are easily overlooked from an outsider's point of view.

Annex 2: Exogenous and endogenous factors of change



This working paper summarizes the Master's thesis of Marie-Luise Hertkorn entitled *Implizites und explizites Wissen im Kontext globaler Entwicklung am Beispiel der Interaktionen wissenschaftlicher und bäuerlicher Perspektiven auf „gute Ernährung"*. Based on qualitative research in the Mount Kenya region, the study offers a comparative account of farmers' and nutritionists' knowledge of "good nutrition". The findings suggest that implicit forms of farmers' knowledge are superseded by explicit nutritional knowledge with the change of generations. Older farmers' implicit knowledge appeared to incite them to follow a healthy diet, whereas the explicit nutritional knowledge of younger, educated respondents did not appear to impact on their nutritional choices. Promoting implicit nutritional knowledge could thus be a promising avenue to ameliorate the diet of the young rural population. This prompts a re-thinking of whom we consider as knowers: people without formal education can have valid knowledge sources outside the framework of nutrition science – and are thus to be considered as epistemic equals. The thesis was elaborated at ETH Zurich under the supervision of Prof. Dr. Lutz Wingert and Prof. Dr. Stephan Rist.

The present Working Paper Series is an outcome of the project "Towards Food Sustainability: Reshaping the Coexistence of Different Food Systems in South America and Africa". The project is part of the Swiss Programme for Research on Global Issues for Development (r4d Programme) funded by the Swiss Agency for Development and Cooperation and the Swiss National Science Foundation and is carried out by the following institutions: Agroecología Universidad Cochabamba (AGRUCO), Cochabamba, Bolivia; Centre for Training and Integrated Research in Arid and Semiarid Lands Development (CETRAD), Nanyuki, Kenya; Geneva Academy of International Humanitarian Law and Human Rights, Geneva, Switzerland; as well as Centre for Development and Environment (CDE), Institute of Geography, and Institute of Social Anthropology, all at the University of Bern, Switzerland.

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